AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) An apparatus for removal and disposal of materials comprising:

a wheel assembly having an axle and a single wheel with a diameter equal to or greater than about 30 inches, the axle including a fulcrum member capable of transmitting a recoil reaction to an action applied at the axle;

a driving member having two spaced-apart members, an upper portion, a middle portion, and a lower portion, wherein the middle portion is attached to the fulcrum member of the axle;

a handle disposed at about ~~attached to~~ the upper portion of the driving member for moving the wheel assembly; and

a blade disposed at about ~~attached to~~ the lower portion of the driving member, the blade adapted to pick up a load of material from a surface when the blade is lowered to the surface by raising the handle and pushing the handle forward;

wherein the wheel is substantially centrally disposed between the two spaced-apart members of the driving member, and wherein the apparatus is configured such that, when the handle is pushed generally downwards, the blade springs generally upwards and forwards in response to a recoil through the fulcrum member at the axle of the wheel assembly, to thereby release ~~releasing~~ the load of material briskly upward and away from the apparatus ~~when the handle is pushed generally downwards to cause the wheel assembly to compress and recoil through the fulcrum member at the axle of the wheel assembly~~.

2. (previously presented) The apparatus according to claim 1, wherein the axle comprises a tubular body having first and second ends which support spokes connecting the axle to a rim of the wheel assembly, the tubular body forming the fulcrum member.

3. (currently amended) The apparatus according to claim 1, wherein the wheel assembly has a quick release for disconnecting the wheel assembly from the driving member~~[[;]]~~.

4. (previously presented) The apparatus according to claim 1, wherein the wheel assembly includes a rim adapted to receive an elastic member, including a bicycle tire.

5. (currently amended) The apparatus according to claim 1, wherein the middle portion of the driving member is generally S-shaped having an upper curved section between the handle and the axle and a lower curved section between the axle and the blade.

6. (original) The apparatus according to claim 1, wherein the blade has two sidewalls and a back wall to keep the load of material from spilling out from the blade.

7. (original) The apparatus according to claim 1, wherein the blade is shaped in the form of a scoop having a radius at the bottom.

8. (original) The apparatus according to claim 1, wherein the driving member comprises a tubular material.

9. (original) The apparatus according to claim 8, wherein the tubular material comprises metal.

10. (original) The apparatus according to claim 8, wherein the tubular material comprises plastic.

11. (original) The apparatus according to claim 1, wherein the handle is slidably adjustable through a telescoping tubular material inside a hollow tubular driving member.

12. (previously presented) The apparatus according to claim 1, wherein the overall length of the apparatus is between about 78 inches to about 88 inches, and wherein the apparatus is configured such that its overall length can be increased to between about 89 inches to about 100 inches.

13. (currently amended) The apparatus according to claim 1, wherein the ~~wheel assembly includes a~~ wheel ~~having~~ has a diameter between about 30 inches to about 36 inches.

14. (previously presented) The apparatus according to claim 1, wherein the height of the handle from a datum plane directly under the wheel assembly is between about 48 inches to about 60 inches, and wherein the apparatus is configured such that the height of the handle from the datum plane can be adjusted to between about 42 inches to about 66 inches.

15. (currently amended) The apparatus according to claim 1, wherein the load of material is selected from the group consisting of one or more of ~~comprises sand and~~ sand, gravel, snow and slush.

16. (cancelled)

17. (currently amended) An apparatus for removal and disposal of materials comprising:

a wheel assembly having an axle and a single wheel having a diameter equal to or greater than about 30 inches, the axle comprising a tubular body having two ~~ends~~ ends;

the axle adapted to ~~receive a plurality of springs at the two respective ends of the axle to~~ act as a fulcrum and transmit a recoil reaction to an action applied at the axle;

an elongate driving member having a curved upper portion, a generally straight middle portion, and an open curved lower portion, wherein the middle portion is attached to ~~the springs at~~ each end of the axle such that the wheel is disposed relative to the driving member for travel within a width of the driving member's footprint;

a handle disposed at about ~~formed from~~ the upper portion of the driving member for moving the wheel assembly; and

a shovel blade disposed at about ~~attached to~~ the lower portion of the driving member, the shovel blade adapted to pick up material from a surface when the shovel blade is lowered to the surface by raising the handle and pushing the handle forward;

wherein the shovel blade is configured to spring ~~springs~~ generally upwards and forwards ~~thereby releasing~~ and to release the material briskly upwards and away from the apparatus when the handle is pushed downwards to cause the wheel assembly ~~springs~~ to compress and recoil through the fulcrum member at the axle of the wheel assembly.

18. (previously presented) The apparatus according to claim 17, wherein the ends of the axle's tubular body support spokes connecting the axle to a rim of the wheel assembly, the tubular body forming the fulcrum member.

19. (currently amended) ~~The apparatus according to claim 17,~~ An apparatus for removal and disposal of materials comprising:

a wheel assembly having an axle, the axle comprising a tubular body having two ends;

the axle adapted to receive a plurality of springs at the two respective ends of the axle to act as a fulcrum and transmit a recoil reaction to an action applied at the axle;

an elongate driving member having a curved upper portion, a generally straight middle portion, and an open lower portion, wherein the middle portion is attached to the springs at each end of the axle;

a handle formed from the upper portion of the driving member for moving the wheel assembly;

a shovel blade attached to the lower portion of the driving member, the shovel blade adapted to pick up material from a surface when the shovel blade is lowered to the surface by raising the handle and pushing the handle forward;

wherein the shovel blade springs generally upwards and forwards, thereby releasing the material briskly away from the apparatus when the handle is pushed downwards to cause the springs to compress and recoil through the fulcrum member at the axle of the wheel assembly; and

wherein the plurality of springs comprises a pair of springs, one spring at each end of the two ends of the axle.

20. (previously presented) The apparatus according to claim 19, wherein the pair of springs is compressed when the handle is pushed downwards, the compression of the springs providing the recoil action.

21. (previously presented) The apparatus according to claim 17, wherein the shovel blade has two sidewalls and a back wall to keep the load of material from spilling out from the shovel blade.

22. (previously presented) The apparatus according to claim 17, wherein the shovel blade is shaped in the form of a scoop having a radius at the bottom.

23. (original) The apparatus according to claim 17, wherein the driving member comprises a tubular material.

24. (original) The apparatus according to claim 23, wherein the tubular material comprises metal.

25. (original) The apparatus according to claim 17, wherein the handle is slidably adjustable through a telescoping tubular material inside a hollow tubular driving member.

26. (previously presented) The apparatus according to claim 17, wherein the overall length of the apparatus is between about 78 inches to about 88 inches, and wherein the apparatus is configured such that its overall length can be increased to between about 89 inches to about 100 inches.

27. (currently amended) The apparatus according to claim 17, wherein the ~~wheel assembly includes a~~ wheel ~~having~~ has a diameter between about 30 inches to about 36 inches.

28. (previously presented) The apparatus according to claim 17, wherein the height of the handle from a datum plane directly under the wheel assembly is between about 48 inches to about 60 inches, and wherein the apparatus is configured such that the height of the handle from the datum plane can be adjusted to between about 42 inches to about 66 inches.

29. (currently amended) The apparatus according to claim 17, wherein the load of material is selected from the group consisting of one or more of ~~comprises sand and~~ sand, gravel, snow and slush.

30. (canceled)

31. (currently amended) A method of snow removal with an apparatus comprising a single ~~relatively large~~ wheel having a diameter equal to or greater

than about 30 inches ~~having a portion substantially at the waist level of an operator~~, a yoke having a handle at a first end portion of the yoke, a shovel blade at a second end portion of the yoke, wherein the yoke is mounted onto an axle of the wheel such that the wheel is disposed relative to the yoke for travel within a width of the yoke's footprint, the method comprising:

moving the apparatus along a path by pushing the handle and rolling the single wheel in a direction commanded by the handle;

shoving onto the shovel blade a load of material lying along the path of the apparatus;

pressing the handle downwards, after picking up the load of material, to lift the shovel blade to a level that clears the path and that is less than the height of the axle;

adjusting further the level of the shovel blade to achieve a balanced load with respect to and over the axle of the wheel, wherein the adjusting includes an adjusted level that is less than or about equal to the height of the centrally located wheel;

transporting the balanced load of material to a destination; ~~and~~

at the destination, briskly applying ~~body weight~~ a force at the handle ~~to propel~~;

compressing the wheel assembly in response to the force applied at the handle;

recoiling through the wheel assembly in response to the compressing; and

propelling the load of material upwards and to a substantial distance away from the apparatus in response to the recoiling, wherein during propelling, the height of the shovel blade is generally less than or equal to the height of the wheel.

32. (previously presented) The method according to claim 31, wherein the diameter of the wheel is between about 30 inches to about 36 inches.

33. (previously presented) The method according to claim 31, further comprising increasing the overall length of the apparatus from between about 78 inches to about 88 inches to between about 89 inches to about 100 inches.

34. (previously presented) The method according to claim 31, further comprising adjusting the height of the handle from a datum plane directly under the wheel from between about 48 inches to about 60 inches to between about 42 inches to about 66 inches.

35. (currently amended) The method according to claim 31, wherein the load of material is selected from the group consisting of ~~comprises sand and~~ sand, gravel, snow and slush.

36. (canceled)

37. (currently amended) ~~The method according to claim 31,~~ A method of snow removal with an apparatus comprising a wheel having a portion substantially at the waist level of an operator, a yoke having a handle at a first end portion of the yoke, a shovel blade at a second end portion of the yoke, wherein the yoke is mounted onto an axle of the wheel, the method comprising:

moving the apparatus along a path by pushing the handle and rolling the wheel in a direction commanded by the handle;

shoving onto the shovel blade a load of material lying along the path of the apparatus;

pressing the handle downwards, after picking up the load of material, to lift the shovel blade to a level that clears the path;

adjusting further the level of the shovel blade to achieve a balanced load with respect to and over the axle of the wheel;

transporting the balanced load of material to a destination;

at the destination, briskly applying a force at the handle to propel the load of material to a substantial distance away from the apparatus;

wherein the axle is adapted to receive a plurality of springs at the two respective ends of the axle to act as a fulcrum and transmit a recoil reaction to an action applied at the axle.

38. (currently amended) The method according to claim 31, wherein the wheel is adapted to receive an elastic material capable of producing ~~a recoil~~ the recoiling ~~action~~ in response to an action applied at the axle.

39. (currently amended) The method according to claim 31, wherein the ~~body weight~~ force is initially applied above ~~at~~ the waist level of the operator and ends below the waist level.

40. (previously presented) The method according to claim 31, wherein the load is propelled to the side of the shovel blade.

41. (previously presented) The method according to claim 31, wherein the load is propelled in a straight-out departure path from the shovel blade.

42. (currently amended) A wheeled shovel comprising a wheel assembly having a single wheel and an axle ~~configured for transmitting a recoil reaction in response to an action applied at the axle~~, the wheel having an outer diameter of greater than ~~between~~ about 30 inches ~~to about 36 inches~~ such that a portion of the wheel assembly is substantially at a user's waist level, a driving member having an upper portion, a middle portion, and a lower portion, the middle portion being coupled to the axle, a handle attached to the upper portion of the driving member for moving the wheel assembly, and a shovel blade attached to the lower portion of the driving member for picking up a load of material, the wheel disposed relative to the driving member for travel within a width of the driving member's footprint ~~whereby the shovel blade propels the load of material away from the shovel blade when the handle is pushed generally downwards to cause the wheel assembly to compress and recoil through the axle~~.

43. (currently amended) The wheeled shovel according to claim 42, wherein the middle portion has a generally curved "S-shape" defined by a lower portion included angle Φ between about eighty degrees and about ninety degrees, and an upper portion included angle Φ' between about eighty degrees and about ninety degrees.

44. (previously presented) The wheeled shovel according to claim 42, wherein the wheel assembly includes a rim and a plurality of spokes radially projecting from the axle connecting the axle to the rim.

45. (previously presented) The wheeled shovel according to claim 42, wherein the ratio of the length of the driving member to the height of the handle is greater than 1:1.

46. (currently amended) ~~The wheeled shovel according to claim 42,~~ A wheeled shovel comprising a wheel assembly having a wheel and an axle configured for transmitting a recoil reaction in response to an action applied at the axle, the wheel having an outer diameter of between about 30 inches to about 36 inches such that a portion of the wheel assembly is substantially at a user's waist level, a driving member having an upper portion, a middle portion, and a lower portion, the middle portion being coupled to the axle, a handle attached to the upper portion of the driving member for moving the wheel assembly, and a shovel blade attached to the lower portion of the driving member for picking up a load of material, whereby the shovel blade propels the load of material away from the shovel blade when the handle is pushed generally downwards to cause the wheel assembly to compress and recoil through the axle, wherein the axle comprises a tubular body having two ends with at least one spring at each said end of the tubular body, whereby the springs are compressed when the handle is pushed generally downwards such that the compression of the springs provides a recoil action.

47. (previously presented) The wheeled shovel according to claim 46, wherein the middle portion of the driving member is attached to the springs.

48. (currently amended) The wheeled shovel according to claim 42, wherein the middle portion of the driving member is generally "S-shaped" and includes ~~an upper~~ a curved upper elbow and a lower curved elbow, and wherein the driving member is coupled to the axle and configured such that upon movement of the driving member about the axle, the upper curved elbow moves a distance H that is greater than the distance A moved by the lower curved elbow.

49. (new) The wheeled shovel according to claim 42, wherein the height of the shovel blade prior to picking up the load of material is less than the height of the axle.

50. (new) The wheeled shovel according to claim 42, wherein the height of the shovel blade during propelling of a load of material is less than or about equal to the height of the wheel.

51. (new) The apparatus according to claim 1, wherein the height of the blade when lowered to the surface is less than the height of the axle, and wherein the height of the blade during the recoil is less than or about equal to the height of the wheel.

52. (new) The apparatus according to claim 1, wherein the apparatus is configured such that the middle portion of the driving member is generally horizontal when the blade is lowered to the surface to thereby allow selective adjustment to the longitudinal positioning of the fulcrum without substantially changing the handle height relative to the surface on which the apparatus is being supported.

53. (new) The apparatus according to claim 1, further comprising at least one sliding device attaching the axle to the middle portion of the driving member, the sliding device being slidable relative to the middle portion to thereby allow repositioning of the attachment point of the axle to the middle portion.

54. (new) The apparatus according to claim 1, wherein the handle is adjustable through an extendable and rotatable connection to the driving member such that the handle can be slidably pulled out, slidably pushed in, and rotated relative to the driving member to thereby selectively adjust the handle height, handle length, and leverage ratio of the apparatus.

55. (new) The apparatus according to claim 54, wherein the handle includes a substantially flat portion that is generally horizontal when the blade is lowered to the surface.

56. (new) The apparatus of claim 17, wherein the shovel blade has a height when lowered to the surface that is less than the height of the axle and that is less than or about equal to the height of the wheel after having picked up the material.

57. (new) The method of claim 31, further comprising selectively repositioning the mounting location of the axle to the yoke.

58. (new) The wheeled shovel according to claim 42, wherein the wheel is substantially centrally disposed relative to a width of the apparatus.

59. (new) The wheeled shovel according to claim 52, wherein the middle portion of the driving member includes two spaced-apart members, and wherein the wheel is substantially centrally disposed between the two spaced-apart members.

60. (new) The wheeled shovel according to claim 42, further comprising means for selectively repositioning the attachment point of the axle to the middle portion.